```
=>  d his

     (FILE 'HOME' ENTERED AT 18:53:58 ON 19 MAY 2004)

     FILE 'ZCAPLUS' ENTERED AT 18:54:08 ON 19 MAY 2004
                E AMYL/CT
                E AMYLOID/CT
                E AMYLOID+ALL/CT
                E AMYLOIDOSIS+ALL/CT
                E "ALZHEIMER'S DISEASE"+ALL/CT

     FILE 'CAPLUS' ENTERED AT 18:56:15 ON 19 MAY 2004
L1              1 S 2001:50467/AN
                  SELECT RN L1 1

     FILE 'REGISTRY' ENTERED AT 18:56:38 ON 19 MAY 2004
L2             16 S E155-170

     FILE 'HCAPLUS' ENTERED AT 18:56:50 ON 19 MAY 2004
L3           6756 S L2
L4          82976 S AMYLOID+PFT,NT/CT
L5           4094 S AMYLOID PRECURSOR PROTEINS+PFT,NT/CT
L6          14673 S "ALZHEIMER'S DISEASE"+PFT,NT/CT
L7             97 S L3 AND L4
L8              2 S L3 AND L5
L9           2449 S L3(L)(THU OR BIOL)/RL
L10            74 S L9 AND L7
L11            47 S L10 AND PY<2001
L12             0 S L11 AND TRANSPLANT?
L13            10 S L3(L)AMYLOID?
L14             4 S L13 AND PY<2001

     FILE 'STNGUIDE' ENTERED AT 19:03:57 ON 19 MAY 2004

     FILE 'HCAPLUS' ENTERED AT 19:10:39 ON 19 MAY 2004
L15           145 S L3 AND ?PLANT?
L16            26 S L3 AND TRANSPLANT?
L17            14 S L16 AND PY<2001
L18             0 S L17 AND ?AMYLO?
L19            32 S L6 AND L3
L20             1 S L19 AND L17
L21            13 S L17 NOT L20
L22             6 S L21 AND CELL?

     FILE 'MEDLINE' ENTERED AT 19:16:24 ON 19 MAY 2004
L23          3206 S L2
L24         15389 S AMYLOID+NT/CT
L25             5 S L23 AND L24
L26             6 S L23 AND TRANSPLANT?
L27            85 S L23 AND IMPLANT?
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=> d que l21
L2           16 SEA FILE=REGISTRY ABB=ON  PLU=ON  (100-88-9/BI OR 1120-71-4/BI
                OR 14099-81-1/BI OR 22458-67-9/BI OR 29777-99-9/BI OR 303957-00
                -8/BI OR 303957-01-9/BI OR 309752-14-5/BI OR 376-73-8/BI OR
                407-41-0/BI OR 40712-20-7/BI OR 58431-88-2/BI OR 7013-33-4/BI
                OR 76326-31-3/BI OR 91-21-4/BI OR 939-23-1/BI)
L3         6756 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L2
L6        14673 SEA FILE=HCAPLUS ABB=ON  PLU=ON  "ALZHEIMER'S DISEASE"+PFT,NT/C
                T
L16          26 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L3 AND TRANSPLANT?
L17          14 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L16 AND PY<2001
L19          32 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L6 AND L3
L20           1 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L19 AND L17
L21          13 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L17 NOT L20


=> d ibib abs hitstr l21 1-13

L21  ANSWER 1 OF 13  HCAPLUS  COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER:         2000:814461  HCAPLUS
DOCUMENT NUMBER:          133:362707
TITLE:                    Preparation of pyridylethylpyridines as
                          phosphodiesterase 4 inhibitors.
INVENTOR(S):              Cote, Bernard; Friesen, Richard; Frenette, Richard;
                          Girard, Mario; Girard, Yves; Godbout, Cedrickx; Guay,
                          Daniel; Hamel, Pierre; Blouin, Marc; Ducharme, Yves;
                          Prescott, Sylvie
PATENT ASSIGNEE(S):       Merck Frosst Canada & Co., Can.
SOURCE:                   PCT Int. Appl., 155 pp.
                          CODEN: PIXXD2
DOCUMENT TYPE:            Patent
LANGUAGE:                 English
FAMILY ACC. NUM. COUNT:   1
PATENT INFORMATION:

     PATENT NO.        KIND  DATE           APPLICATION NO.  DATE
     ---------------   ----  --------       ---------------  --------
     WO 2000068198      A2   20001116       WO 2000-CA500    20000503 <--
     WO 2000068198      A3   20010405
         W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR,
             CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU,
             ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV,
             MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG,
             SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW,
             AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE,
             DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF,
             CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
     US 6200993         B1   20010313       US 2000-551040   20000417
     EP 1177175         A2   20020206       EP 2000-922400   20000503
         R:  AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO
     AU 764258          B2   20030814       AU 2000-42829    20000503
PRIORITY APPLN. INFO.:                    US 1999-132532P  P  19990505
                                          WO 2000-CA500    W  20000503
OTHER SOURCE(S):          MARPAT 133:362707
GI
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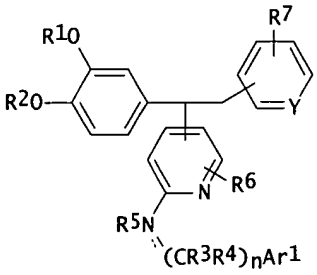


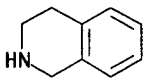
I

AB Title compds. [I; Y = N, NO; R1, R2 = H, alkyl, haloalkyl; R3, R4 = H, alkyl; R3R4 = O, atoms to form a 5-7 membered carbocyclic ring; R5 = null, H, (substituted) alkyl, alkylcarbonyl, arylcarbonyl, alkoxycarbonyl, aryloxycarbonyl, O; R3R5 = atoms to form a 5-6 membered heterocyclic ring; dotted line = optional double bond; R6, R7 = H, halo, alkyl, haloalkyl, cyano; n = 0-6], were prepd. Thus, 4-[2-[3,4-bis(difluoromethoxy)phenyl]-2-(6-bromo-3-pyridyl)ethyl]pyridine (prepn. given) was heated with PhCH2NH2 and CuI to give 72% 4-[2-[3,4-bis(difluoromethoxy)phenyl]-2-[6-(benzylamino)-3-pyridyl]ethyl]pyridine. The latter inhibited PDE 4 with IC50 = 0.75 nM.

IT **91-21-4**, 1,2,3,4-Tetrahydroisoquinoline
RL: RCT (Reactant); RACT (Reactant or reagent)
(prepn. of pyridylethylpyridines as phosphodiesterase 4 inhibitors)

RN 91-21-4 HCAPLUS

CN Isoquinoline, 1,2,3,4-tetrahydro- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



L21 ANSWER 2 OF 13 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1998:614254 HCAPLUS

DOCUMENT NUMBER: 129:302563

TITLE: Preparation of piperidines and their analogs as neurokinin antagonists for treatment of diseases

INVENTOR(S): Carruthers, Nicholas I.; Alaimo, Cheryl A.

PATENT ASSIGNEE(S): Schering Corp., USA

SOURCE: Jpn. Kokai Tokkyo Koho, 39 pp.
CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10251228	A2	19980922	JP 1997-51901	19970306 <--

PRIORITY APPLN. INFO.: JP 1997-51901 19970306

OTHER SOURCE(S): MARPAT 129:302563

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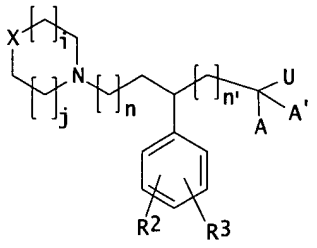


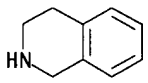
I

AB The compds. I [i, j = 1, 2; n = 0-3; n' = 1-3; A = A' = H; AA' may form O, S, substituted imino; X = O, CO, (un)substituted CH2, (un)substituted NH, S, SO, SO2; R2, R3 = H, halo, C1-6 alkyl, CF3, OH, alkoxy, (un)substituted Ph, NO2, etc.] or pharmacol. acceptable salts are prepd. I are useful for treatment of asthma, allergy, psoriasis, rheumatoid arthritis, migraine headache, depression, Alzheimer's disease, gastrointestinal disorders, pain, etc. Hydrogenation of 2.0 g 3,4-dichloro-.beta.-(2-oxoethyl)-N-methyl-N-phenylbenzenepropanamide with NaBH3CN at room temp. for 18 h gave 0.42 g .beta.-(3,4-dichlorophenyl)-4-hydroxy-N-methyl-N,4-diphenyl-1-piperidinepentamide, which showed Ki of 150 nM and 5.2 nM for NK1 and Nk2 receptor binding, resp.

IT **91-21-4**, 1,2,3,4-Tetrahydroisoquinoline
RL: RCT (Reactant); RACT (Reactant or reagent)
(prepn. of piperidines as neurokinin antagonists for treatment of diseases)

RN 91-21-4 HCAPLUS

CN Isoquinoline, 1,2,3,4-tetrahydro- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



L21 ANSWER 3 OF 13 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1997:44761 HCAPLUS

DOCUMENT NUMBER: 126:59877

TITLE: Preparation of benzenesulfonyltetrahydroquinolines, -indolines, -isatins, and related compounds as inhibitors of phosphodiesterase IV and tumor necrosis factor.

INVENTOR(S): Montana, John; Dyke, Hazel Joan; Maxey, Robert James; Lowe, Christopher

PATENT ASSIGNEE(S): Chiroscience Limited, UK

SOURCE: PCT Int. Appl., 41 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

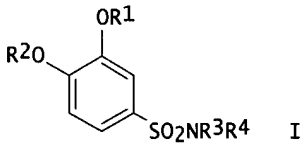
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9636611	A1	19961121	WO 1996-GB1203	19960520 <--
W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML				
AU 9657721	A1	19961129	AU 1996-57721	19960520 <--
ZA 9603999	A	19970520	ZA 1996-3999	19960520 <--

US 5728712 A 19980317 US 1996-650672 19960520 <--
PRIORITY APPLN. INFO.: GB 1995-10184 A 19950519
GB 1995-20419 A 19951006
WO 1996-GB1203 W 19960520
OTHER SOURCE(S): MARPAT 126:59877
GI

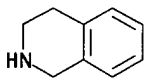


I

AB Title compds. [I; R1 = (substituted) alkyl, cycloalkyl; R2 = (halo-substituted) alkyl; R3R4N = (substituted) 5-7 membered heterocyclyl which is fused to a carbocyclic, arom., heterocyclic or heteroarom. ring; with provisos], were prepd. as inhibitors of phosphodiesterase IV and tumor necrosis factor (no data). Thus, 1,2,3,4-tetrahydroisoquinoline, 3,4-dimethoxybenzenesulfonyl chloride, and Et3N were stirred 24 h in CH2Cl2 to give N-(3,4-dimethoxybenzenesulfonyl)-1,2,3,4-tetrahydroquinoline.

IT **91-21-4**, 1,2,3,4-Tetrahydroisoquinoline
RL: RCT (Reactant); RACT (Reactant or reagent)
(prepn. of benzenesulfonyltetrahydroquinolines, -indolines, -isatins, and related compds. as inhibitors of phosphodiesterase IV and tumor necrosis factor)

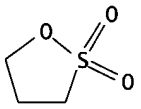
RN 91-21-4 HCAPLUS
CN Isoquinoline, 1,2,3,4-tetrahydro- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



L21 ANSWER 4 OF 13 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1997:34995 HCAPLUS
DOCUMENT NUMBER: 126:162158
TITLE: Novel anti-calcification treatment of biological tissues by grafting of sulfonated polyethylene oxide
AUTHOR(S): Park, Ki Dong; Lee, Won Kyu; Yun, Ju Young; Han, Dong Keun; Kim, Soo Hyun; Kim Young Ha; Kim, Hyoung Mook; Kim, Kwang Taek
CORPORATE SOURCE: Polymer Chem. Lab., Korea Inst. Sci. Technol., Seoul, 130-650, S. Korea
SOURCE: Biomaterials (**1997**), 18(1), 47-51
CODEN: BIMADU; ISSN: 0142-9612
PUBLISHER: Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Biol. porcine tissue was modified by the direct coupling of sulfonated polyethylene oxide (PEO-SO3) contg. amino end groups after glutaraldehyde fixation. The calcification of the modified tissue [bioprosthetic tissue (BT)-PEO-SO3] and control (BT control) was investigated by in vivo rate subdermal, canine aorta-illiac shunt and right ventricle-pulmonary artery shunt implantation models. Less calcium deposition of BT-PEO-SO3 than of BT control was obsd. in in vivo tests. Such a reduced calcification of BT-PEO-SO3 can be explained by decreases of residual glutaraldehyde groups, a space filling effect and, therefore, improved biostability and synergistic blood-compatible effects of PEO and SO3 groups after the covalent binding of PEO-SO3 to tissue. This simple method can be a useful anti-calcification treatment for implantable tissue valves.

IT **1120-71-4D**, Propanesultone, reaction products with PEG
RL: PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(anticalcification treatment of biol. tissues by grafting of sulfonated polyethylene oxide)
RN 1120-71-4 HCAPLUS
CN 1,2-Oxathiolane, 2,2-dioxide (8CI, 9CI) (CA INDEX NAME)

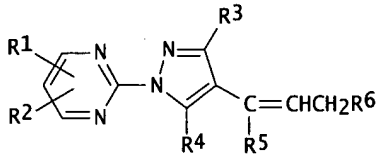


REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L21 ANSWER 5 OF 13 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1996:446483 HCAPLUS
DOCUMENT NUMBER: 125:114693
TITLE: Preparation of pyrimidinylpyrazole derivatives as antitumor agents
INVENTOR(S): Ejima, Akio; Sugimori, Masamichi; Mitsui, Ikuo
PATENT ASSIGNEE(S): Daiichi Pharmaceutical Co., Ltd., Japan
SOURCE: PCT Int. Appl., 59 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
WO 9610024	A1	19960404	WO 1995-JP1934	19950925	<--
W: CA, CN, FI, KR, NO, RU, US					
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE					
CA 2201110	AA	19960404	CA 1995-2201110	19950925	<--
EP 784055	A1	19970716	EP 1995-932229	19950925	<--
EP 784055	B1	20030212			
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE					
CN 1166833	A	19971203	CN 1995-196449	19950925	<--
CN 1071754	B	20010926			
RU 2146675	C1	20000320	RU 1997-106768	19950925	<--
AT 232528	E	20030215	AT 1995-932229	19950925	
ES 2192584	T3	20031016	ES 1995-932229	19950925	
JP 09048776	A2	19970218	JP 1995-247096	19950926	<--
FI 9701227	A	19970523	FI 1997-1227	19970324	<--
NO 9701384	A	19970523	NO 1997-1384	19970324	<--
HK 1001396	A1	20030815	HK 1998-100241	19980112	
US 5852019	A	19981222	US 1998-821076	19980204	<--

PRIORITY APPLN. INFO.: JP 1994-229422 A 19940926
JP 1995-135010 A 19950601
WO 1995-JP1934 W 19950925
OTHER SOURCE(S): MARPAT 125:114693
GI



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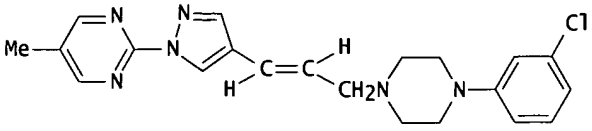


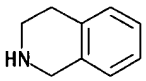
II

AB The title compds. [I; R1, R2 = H, halo, NH2, alkylamino, dialkylamino, OH, alkylthio, alkoxy, cyano, CONH2, (un)substituted alkyl, etc.; R3, R5 = H, alkyl; R4 = H, alkyl, CH2Ph; R6= tetrahydroisoquinolyl, morpholyl, piperidyl, piperazyl, etc.] are prepd. Thus, 10 g 1-[5-methyl-1-(2-pyrimidinyl)-4-pyrazolyl]-3-[4-(3-chlorophenyl)-1-piperazinyl]-1-propanone hydrochloride was dissolved in a mixt. of 600 mL THF and 600 mL EtOH, cooled to 0.degree., reduced with a total of 3.5 g NaBH4 for 1 h and 45 min, treated with 30 mL 4 N aq. HCl, distd. to remove the solvent, treated with 1,200 mL THF and 5.9 g p-MeC6H4SO3H, and refluxed for 2 h to give the title compd. (II). II was administered at 77 mg/kg i.p on day 1 and 5 to mice **transplanted** i.p. with P388 leukemia cells to show T/C of 169%.

IT **14099-81-1**, 1,2,3,4-Tetrahydroisoquinoline hydrochloride
RL: RCT (Reactant); RACT (Reactant or reagent)
(prepn. of alkenylpyrimidinylpyrazole derivs. as antitumor agents)

RN 14099-81-1 HCAPLUS

CN Isoquinoline, 1,2,3,4-tetrahydro-, hydrochloride (6CI, 8CI, 9CI) (CA INDEX NAME)



● HCl

L21 ANSWER 6 OF 13 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1996:326979 HCAPLUS

DOCUMENT NUMBER: 125:7054

TITLE: Malignant conversion of chemically transformed normal human cells

AUTHOR(S): Milo, George E.; Li, Dawei; Casto, Bruce C.; Theil, Karl; Shuler, Charles; Noyes, Inge; Chen, Jucheng

CORPORATE SOURCE: Dep. Med. Biochem. Comprehensive Cancer Cent., Ohio State Univ., Columbus, OH, 43210, USA

SOURCE: Proceedings of the National Academy of Sciences of the United States of America (**1996**), 93(11), 5229-5234
CODEN: PNASA6; ISSN: 0027-8424

PUBLISHER: National Academy of Sciences

DOCUMENT TYPE: Journal

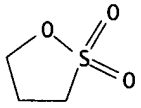
LANGUAGE: English

AB Two structurally unrelated chems., aflatoxin B1 and propane sultone, transformed human foreskin cells to a stage of anchorage-independent growth. Isolation from agar and repopulation in monolayer culture of these transformed cells was followed by transfection with a cDNA library,

which resulted in cells that exhibited an altered epithelioid morphol. Chem. transformed/nontransfected cells and transfected normal cells did not undergo a significant morphol. change. These epithelioid-appearing, transfected cells, when inoculated into nude mice, form progressively growing tumors. The tumors are histopathol. interpreted as carcinomas. All of the first generation tumors in the surrogate hosts exhibited characteristic rates of growth similar to those of **transplants** of spontaneous human tumors. In the second generation of tumor xenografts, the progressively growing tumors derived from the transfected cells exhibited a more rapid rate of growth. Southern anal. and reverse transcription PCR confirmed that a 1.3-kb genetic element was integrated into the genome and was actively being transcribed. Examn. of the metaphase chromosomes in normal human cells revealed that the genetic element responsible for this conversion was located at site 31-32 of the q arm of chromosome 7. The DNA sequence of this 1.3-kb genetic element contains a coding region for 79 amino acids and a long 3'-untranslated region and appears to be identical to CATR1.3 isolated from tumors produced by Me methanesulfonate-converted, nontransplantable human tumor cells.

IT **1120-71-4**, Propane sultone
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(transfection with tumor-derived cDNA library contg. CATR1.3 genetic element converts normal human cells transformed to anchorage-independent growth stage by chem. carcinogenesis to aggressive malignant tumorigenic stage in nude mice)

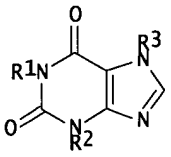
RN 1120-71-4 HCAPLUS
CN 1,2-Oxathiolane, 2,2-dioxide (8CI, 9CI) (CA INDEX NAME)



L21 ANSWER 7 OF 13 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1995:767627 HCAPLUS
DOCUMENT NUMBER: 124:21803
TITLE: Method and agents for preventing tissue injury from hypoxia
INVENTOR(S): Bursten, Stuart L.; Singer, Jack W.; Rice, Glenn C.
PATENT ASSIGNEE(S): CE Therapeutics, Inc., USA
SOURCE: PCT Int. Appl., 56 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9513075	A1	19950518	WO 1994-US12821	19941114 <--
W: AU, CA, JP				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
AU 9510907	A1	19950529	AU 1995-10907	19941114 <--
EP 728003	A1	19960828	EP 1995-901808	19941114 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				

PRIORITY APPLN. INFO.: US 1993-152117 A 19931112
WO 1994-US12821 W 19941114
OTHER SOURCE(S): MARPAT 124:21803
GI



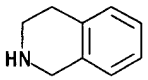
I

AB Tissue injury, caused by tissue hypoxia and reoxygenation, is prevented by administering a xanthine deriv. I [R1 = (.omega.-1) secondary alc.-substituted C5-12 alkyl enantiomer; R2, R3 = C1-12 alkyl or (di)oxaalkyl] or a (heterocyclylalkyl)amine that inhibits signal transduction by inhibiting cellular accumulation of linoleoyl phosphatidic acid through inhibition of lysophosphatidic acyltransferase. Diseases that can be treated with these compds. include shock, sequelae of myocardial infarction and stroke, altitude sickness, acidosis, hypoxia-mediated neurodegenerative diseases, and disorders related to **transplantation** and **transplant** rejection. Thus, in mice with exptl. hemorrhage, treatment with lisophylline (100 mg/kg i.v. after 1 h, then 100 mg/kg i.p. 8 times at 8-h intervals) largely normalized signs of hemorrhagic shock (neutrophil infiltration, interstitial edema, elevated plasma levels of interferon-.gamma. and tumor necrosis factor .alpha., elevated mRNA levels for interleukins 1.beta. and 6 in pulmonary mononuclear cells, etc.).

IT **91-21-4D**, aminoalkyl derivs.
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(method and agents for preventing tissue injury from hypoxia)

RN 91-21-4 HCAPLUS

CN Isoquinoline, 1,2,3,4-tetrahydro- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



L21 ANSWER 8 OF 13 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1995:496515 HCAPLUS

DOCUMENT NUMBER: 123:420

TITLE: .gamma.-Propoxy-sulfo-lichenin, an antitumor polysaccharide derived from lichenin

AUTHOR(S): Hensel, Andreas

CORPORATE SOURCE: Taunusring 16, Alzenau/Ufr., 63755, Germany

SOURCE: Pharmaceutica Acta Helvetiae (**1995**), 70(1), 25-31
CODEN: PAHEAA; ISSN: 0031-6865

PUBLISHER: Elsevier

DOCUMENT TYPE: Journal

LANGUAGE: English

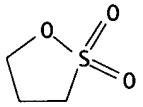
AB A water-sol. semisynthetic polysaccharide, .gamma.-propoxy-sulfo-lichenin (PSL), was prepd. by reaction of propansultone with lichenin, a natural occurring .beta.-1.3/1.4-linked glucan originating from Cetraria sp. PSL represents a class of mixed-linked .beta.-glucans with long and hydrophilic side chains in position C-6 of the glucan backbone. PSL with a degree of substitution of 0.8 and an av. mol. wt. of 250 kDa exhibited a strong antitumor activity in doses of 25 and 5 mg/kg against solid sarcoma 180 (100% resp. 82% tumor inhibition). The antitumor activity of PSL was shown to be dependent on the dimension of the mol.: the higher the av. mol. wt., the higher was the inhibition rate obtained in the antitumor assay. No antitumor effect was obsd. by using a pretreatment of animals prior to **transplantation** of sarcoma 180. With syngenic DBA/2-MC.SC1 fibrosarcoma, PSL inhibited tumor growth by about 88% at a

concn. of 25 mg/kg. PSL failed to exhibit any direct cytotoxic effects on hormone-independent MDA-MB 231 mammacarcinoma. For PSL, an indirect antitumor effect via modulation of the host immune defense is postulated.

IT **1120-71-4**
RL: RCT (Reactant); RACT (Reactant or reagent)
(.gamma.-Propoxy-sulfo-lichenin as an antitumor polysaccharide derived from lichenin)

RN 1120-71-4 HCAPLUS

CN 1,2-Oxathiolane, 2,2-dioxide (8CI, 9CI) (CA INDEX NAME)



L21 ANSWER 9 OF 13 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1995:227140 HCAPLUS

DOCUMENT NUMBER: 122:151367

TITLE: Compounds for treatment of proliferative diseases mediated by second messengers

INVENTOR(S): Leigh, Alistair; Michnick, John; Kumar, Anil; Underiner, Gail; Rice, Glenn C.; Klein, J. Peter; Reddy, Dandu

PATENT ASSIGNEE(S): Cell Therapeutics, Inc., USA

SOURCE: PCT Int. Appl., 68 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9422449	A1	19941013	WO 1994-US3610	19940401 <--
W: AU, CA, JP				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 5670506	A	19970923	US 1993-42946	19930405 <--
AU 9466238	A1	19941024	AU 1994-66238	19940401 <--
EP 714302	A1	19960605	EP 1994-914005	19940401 <--
R: DE, FR, GB, IT				

PRIORITY APPLN. INFO.: US 1993-42946 19930405
WO 1994-US3610 19940401

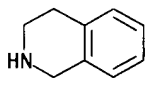
OTHER SOURCE(S): MARPAT 122:151367

AB Carbocyclic and heterocyclic compds. with 5-7 ring atoms are prepd. which are useful as antiproliferative agents for treatment and prevention of diseases mediated by 2nd-messenger pathways. Thus, 1-(6-chloro-5-oxohexyl)-3,7-dimethylxanthine at 100 .mu.M inhibited by 88% the degranulation of mast cells in response to allergen challenge and strongly inhibited growth of Saccharomyces cerevisiae, an indication of potential topical or systemic antimicrobial activity.

IT **91-21-4DP**, derivs.
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(compds. for treatment of proliferative diseases mediated by second messengers)

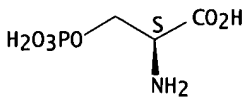
RN 91-21-4 HCAPLUS

CN Isoquinoline, 1,2,3,4-tetrahydro- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



L21 ANSWER 10 OF 13 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1993:144618 HCAPLUS
DOCUMENT NUMBER: 118:144618
TITLE: Phosphorus metabolite characterization of human prostatic adenocarcinoma in a nude mouse model by phosphorus-32 magnetic resonance spectroscopy and high pressure liquid chromatography
AUTHOR(S): Kurhanewicz, John; Dahiya, Rajvir; Macdonald, Jeffrey M.; Jajodia, Prahalad; Chang, Lee Hong; James, Thomas L.; Narayan, Perinchery
CORPORATE SOURCE: Sch. Med., Univ. California, San Francisco, CA, 94143-0738, USA
SOURCE: NMR in Biomedicine (**1992**), 5(4), 185-92
CODEN: NMRBEF; ISSN: 0952-3480
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A series of expts. were conducted to identify and quantify the phosphorus metabolites of DU 145 xenografts (a human prostatic adenocarcinoma cell line grown in nude mice) using 31P MRS and HPLC. The 131P spectral characteristics of DU 145 xenografts were compared to perfused DU 145 cells and to in situ human prostatic adenocarcinomas. These studies demonstrated that both DU 145 xenografts and perfused DU 145 cells exhibited reduced levels of phosphocreatine relative to spectra of in situ human prostatic adenocarcinomas. Elevated levels of phosphomonesters (PMEs) were obsd. in 31P spectra of both DU 145 xenografts and in situ human prostatic adenocarcinomas. The major components of the PME resonance of Du 145 xenografts were identified as phosphocholine and phosphoethanolamine. High levels of diphosphodiesters (DPDEs) were consistently obsd. for both DU 145 xenografts and perfused DU 145 cells, but were absent in 31P spectra of in situ primary human adenocarcinomas. In agreement with spectroscopic results, high pressure liq. chromatog. analyses of human tissue removed at surgery contained insignificant amts. of DPDEs while DU 145 xenografts had high levels of DPDEs consistently mainly of uridine-5'-diphospho-N-acetylgalactosamine (22.4 nmol/mg protein) and uridine-5'-diphospho-N-acetylglucosamine (7.4 nmol/mg protein).
IT **407-41-0**
RL: BIOL (Biological study)
(of prostate gland adenocarcinoma cultured cells and xenotransplants in nude mouse and in situ from tissues of human, NMR spectroscopy and HPLC in study of)
RN 407-41-0 HCAPLUS
CN L-Serine, dihydrogen phosphate (ester) (9CI) (CA INDEX NAME)

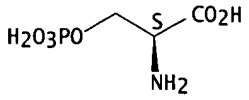
Absolute stereochemistry.



L21 ANSWER 11 OF 13 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1992:589189 HCAPLUS
DOCUMENT NUMBER: 117:189189
TITLE: Levels of phosphoserine, phosphothreonine and prostaglandins in a rat **transplantable** hepatoma and prostatic tumor
AUTHOR(S): Levine, L.; Van Vunakis, H.
CORPORATE SOURCE: Dep. Biochem., Brandeis Univ., Waltham, MA, 02254, USA
SOURCE: Developments in Oncology (**1991**), 67(Eicosanoids Other Bioact. Lipids Cancer Radiat. Inj.), 353-7
CODEN: DEOND5; ISSN: 0167-4927

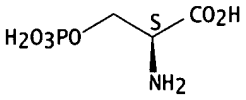
DOCUMENT TYPE: Journal
LANGUAGE: English
AB To investigate the possible relationship between putative oncogene product and growth factor receptor kinase activity-assocd. phosphorylation and prostaglandin formation, the authors measured phosphoserine and phosphothreonine residues and prostaglandin content in hepatoma and prostate tumor **transplants** in rats.
IT **407-41-0**
RL: BIOL (Biological study)
(of hepatoma and prostate tumor tissues, phosphothreonine and prostaglandins in relation to)
RN 407-41-0 HCAPLUS
CN L-Serine, dihydrogen phosphate (ester) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L21 ANSWER 12 OF 13 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1992:465125 HCAPLUS
DOCUMENT NUMBER: 117:65125
TITLE: Purification and characterization of a 65-kDa tumor-associated phosphoprotein from rat **transplantable** hepatocellular carcinoma 1682C cell line
AUTHOR(S): Mirowski, Marek; Sherman, Ute; Hanausek, Malgorzata
CORPORATE SOURCE: M. D. Anderson Cancer Cent., Univ. Texas, Smithville, TX, 78957, USA
SOURCE: Protein Expression and Purification (**1992**), 3(3), 196-203
CODEN: PEXPEJ; ISSN: 1046-5928
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A homogeneous tumor-assocd. phosphoglycoprotein of about 65 kDa (p65) was isolated by ammonium sulfate pptn. of proteins from conditioned medium contg. the rat **transplantable** hepatocellular carcinoma 1682C cell line, followed by high-performance liq. chromatog. on mol.-sieving and Ph hydrophobic interaction columns. The protein was concd. in a Rotofor isoelec. focusing cell and finally sepd. by isoelectrofocusing followed by SDS-polyacrylamide gel electrophoresis. A purifn. of approx. 11,000-fold was achieved after the Rotofor concn. step. This protein migrated as a single band upon electrophoresis in SDS-PAGE and had a pI of 5.8 in isoelectrofocusing gels. The carbohydrate content of the blotted phosphoglycoprotein was analyzed by probing the blots with biotinylated lectins; a pos. reaction was detected with Con A, wheat-germ agglutinin, and Ricinus communis agglutinin. To confirm the tumor origin of this mol., hepatocellular carcinoma cells were labeled in vivo using [32P]orthophosphate as well as [35S]methionine and cell culture medium was analyzed for the presence of radioactive band that corresponds with the protein. Phosphoamino acid anal. by thin-layer chromatog. showed the presence of phosphotyrosine, phosphothreonine, and phosphoserine, which was later confirmed by anal. of the amino acid compn. Using the method described by J. J. Marchalonis and J. K. Weltman (1971) for comparative anal. of protein structure and evolution, the protein isolated here was compared with other tumor markers and proteins showing similar properties and no significant similarities were found.
IT **407-41-0**
RL: BIOL (Biological study)
(of glycophosphoprotein p65, of hepatocellular carcinoma)
RN 407-41-0 HCAPLUS
CN L-Serine, dihydrogen phosphate (ester) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

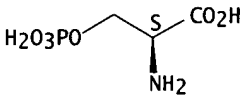


L21 ANSWER 13 OF 13 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1981:422482 HCAPLUS
DOCUMENT NUMBER: 95:22482
TITLE: Retrieval analysis of calcific degeneration of prosthetic tissue valves: the role of vitamin K-dependent processes and other regulatory mechanisms
AUTHOR(S): Levy, Robert J.; Sanders, Stephen P.; Lian, Jane B.
CORPORATE SOURCE: Med. Cent., Child. Hosp., Boston, MA, 02115, USA
SOURCE: NBS Special Publication (United States) (**1981**), 601, 339-48
CODEN: XNBSAV; ISSN: 0083-1883
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Calcification of prosthetic glutaraldehyde preserved porcine xeno-graft valves was found to be assocd. with calcification, and this complication occurred only in patients under 15 yr of age at the time of valve replacement. Amino acid anal. of calcified leaflet tissue revealed the presence of high levels of proteins contg. vitamin K-dependent, Ca2+-binding .gamma.-carboxyglutamic acid (Gla), in mineralized specimens, with no Gla present in noncalcified valve tissue. Ca2+-binding was also detected in relatively greater amts. in the mineralized specimens, compared to control. Calcified xenografts also demonstrated a relative redn. in collagen content. The implications that vitamin K-antagonism could be of benefit in treating or preventing prosthesis calcification is discussed.

IT **407-41-0**
RL: BIOL (Biological study)
(of ischemic heart valve xenograph calcification)
RN 407-41-0 HCAPLUS
CN L-Serine, dihydrogen phosphate (ester) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



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                407-41-0/BI OR 40712-20-7/BI OR 58431-88-2/BI OR 7013-33-4/BI
                OR 76326-31-3/BI OR 91-21-4/BI OR 939-23-1/BI)
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L24       15389 SEA FILE=MEDLINE ABB=ON  PLU=ON  AMYLOID+NT/CT
L25           5 SEA FILE=MEDLINE ABB=ON  PLU=ON  L23 AND L24


=> d bib abs trial 1-5

L25  ANSWER 1 OF 5     MEDLINE on STN
AN   2003215702     MEDLINE
DN   PubMed ID: 12663096
TI   NMDA receptor regulation by amyloid-beta does not account for its
     inhibition of LTP in rat hippocampus.
AU   Raymond Clarke R; Ireland David R; Abraham Wickliffe C
CS   Department of Psychology, University of Otago, Box 56, Dunedin, New
     Zealand.. clarke.raymond@anu.edu.au
SO   Brain research, (2003 Apr 11) 968 (2) 263-72.
     Journal code: 0045503. ISSN: 0006-8993.
CY   Netherlands
DT   Journal; Article; (JOURNAL ARTICLE)
LA   English
FS   Priority Journals
EM   200307
ED   Entered STN: 20030513
     Last Updated on STN: 20030708
     Entered Medline: 20030707
AB   Accumulation of amyloid-beta peptide (Abeta) is widely believed to play a
     critical role in the pathogenesis of Alzheimer's disease.  Although
     amyloid-containing plaques are a key neuropathological feature of AD,
     soluble forms of Abeta can interfere with synaptic plasticity in the
     brain, suggesting that this form of the peptide may be responsible for
     much of the memory deficit seen early in the disease.  Here, we
     investigate the mechanism underlying the effects of Abeta on long-term
     potentiation (LTP) in area CA1 of rat hippocampus.  Extracellular field
     recordings were made in area CA1 of hippocampal slices taken from young,
     adult male rats.  A non-toxic concentration of Abeta (200 nM) produced a
     rapid inhibition of LTP induced by 100 Hz stimulation while having no
     long-term effect on normal synaptic transmission.  The same dose of Abeta
     had no effect on long-term depression (LTD) induced by 1200 pulses at 1 or
     3 Hz.  Picrotoxin had no effect on the inhibition of LTP, suggesting Abeta
     does not act by enhancing GABAergic transmission.  Since the LTP induction
     in this study was dependent on N-methyl-D-aspartate (NMDA) receptor
     activation, we looked at the effect of Abeta on isolated NMDA
     receptor-mediated field potentials.  Abeta produced a small but
     significant inhibition of NMDA receptor-mediated synaptic potentials (
     approximately 25%).  However, a low dose of MK-801 (0.5 microM) that
     produced a similar inhibition of NMDA potentials had no effect on LTP
     induction but completely blocked LTD induction.  These results suggest
     that Abeta does not inhibit LTP via effects on NMDA receptors, but rather
     interferes with a downstream pathway.
TI   NMDA receptor regulation by amyloid-beta does not account for its
     inhibition of LTP in rat hippocampus.
CT   Check Tags: Comparative Study; In Vitro; Male; Support, Non-U.S. Gov't
      2-Amino-5-phosphonovalerate: PD, pharmacology
      6-Cyano-7-nitroquinoxaline-2,3-dione: PD, pharmacology
       *Amyloid beta-Protein: ME, metabolism
      Animals
      Dizocilpine Maleate: PD, pharmacology
      Excitatory Amino Acid Antagonists: PD, pharmacology
      GABA Antagonists: PD, pharmacology
      Hippocampus: AH, anatomy & histology
      Hippocampus: DE, drug effects
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*Hippocampus: PH, physiology
Long-Term Depression (Physiology): DE, drug effects
Long-Term Depression (Physiology): PH, physiology
Long-Term Potentiation: DE, drug effects
*Long-Term Potentiation: PH, physiology
Picrotoxin: PD, pharmacology
Rats
Rats, Sprague-Dawley
*Receptors, N-Methyl-D-Aspartate: ME, metabolism
RN 115066-14-3 (6-Cyano-7-nitroquinoxaline-2,3-dione); 124-87-8 (Picrotoxin); **76726-92-6 (2-Amino-5-phosphonovalerate)**; 77086-22-7 (Dizocilpine Maleate)
CN 0 (Amyloid beta-Protein); 0 (Excitatory Amino Acid Antagonists); 0 (GABA Antagonists); 0 (Receptors, N-Methyl-D-Aspartate)

L25 ANSWER 2 OF 5 MEDLINE on STN
AN 2002346485 MEDLINE
DN PubMed ID: 12088742
TI Uptake and pathogenic effects of amyloid beta peptide 1-42 are enhanced by integrin antagonists and blocked by NMDA receptor antagonists.
AU Bi X; Gall C M; Zhou J; Lynch G
CS Psychiatry and Human Behavior, 101 Theory, Suite 250, University of California at Irvine, 92697, USA.. xbi@uci.edu
NC AG00538 (NIA)
NS37799 (NINDS)
SO Neuroscience, (2002) 112 (4) 827-40.
Journal code: 7605074. ISSN: 0306-4522.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 200209
ED Entered STN: 20020629
Last Updated on STN: 20020904
Entered Medline: 20020903
AB Many synapses contain two types of receptors - integrins and N-methyl-D-aspartate (NMDA) receptors - that have been implicated in peptide internalization. The present studies tested if either class is involved in the uptake of the 42-residue form of amyloid beta peptide (Abeta1-42), an event hypothesized to be of importance in the development of Alzheimer's disease. Cultured hippocampal slices were exposed to Abeta1-42 for 6 days in the presence or absence of soluble Gly-Arg-Gly-Asp-Ser-Pro, a peptide antagonist of Arg-Gly-Asp (RGD)-binding integrins, or the disintegrin echistatin. Abeta uptake, as assessed with immunocytochemistry, occurred in 42% of the slices incubated with Abeta peptide alone but in more than 80% of the slices co-treated with integrin antagonists. Uptake was also found in a broader range of hippocampal subfields in RGD-treated slices. Increased sequestration was accompanied by two characteristics of early stage Alzheimer's disease: elevated concentrations of cathepsin D immunoreactivity and activation of microglia. The selective NMDA receptor antagonist D-(-)-2-amino-5-phosphonovalerate completely blocked internalization of Abeta, up-regulation of cathepsin D, and activation of microglia. Our results identify two classes of receptors that cooperatively regulate the internalization of Abeta1-42 and support the hypothesis that characteristic pathologies of Alzheimer's disease occur once critical intraneuronal Abeta concentrations are reached.
TI Uptake and pathogenic effects of amyloid beta peptide 1-42 are enhanced by integrin antagonists and blocked by NMDA receptor antagonists.
CT Check Tags: Support, Non-U.S. Gov't; Support, U.S. Gov't, P.H.S.
2-Amino-5-phosphonovalerate: PD, pharmacology
Alzheimer Disease: ME, metabolism
***Amyloid beta-Protein: AE, adverse effects**
***Amyloid beta-Protein: ME, metabolism**
Animals
Cathepsin D: ME, metabolism
*Hippocampus: ME, metabolism

Immunohistochemistry
*Integrins: AI, antagonists & inhibitors
*Integrins: ME, metabolism
Microglia: ME, metabolism
*Oligopeptides: PD, pharmacology
*Peptide Fragments: AE, adverse effects
*Peptide Fragments: ME, metabolism
Rats
Rats, Sprague-Dawley
*Receptors, N-Methyl-D-Aspartate: AI, antagonists & inhibitors
*Receptors, N-Methyl-D-Aspartate: ME, metabolism
Tissue Culture
RN **76726-92-6 (2-Amino-5-phosphonovalerate)**; 91037-75-1 (glycyl-arginyl-glycyl-aspartyl-seryl-proline)
CN 0 (Amyloid beta-Protein); 0 (Integrins); 0 (Oligopeptides); 0 (Peptide Fragments); 0 (Receptors, N-Methyl-D-Aspartate); 0 (amyloid beta-protein (1-42)); 0 (glycyl-arginyl-alanyl-aspartyl-seryl-proline); EC 3.4.23.5 (Cathepsin D)

L25 ANSWER 3 OF 5 MEDLINE on STN
AN 2001438057 MEDLINE
DN PubMed ID: 11483299
TI Dynamic induction of the long pentraxin PTX3 in the CNS after limbic seizures: evidence for a protective role in seizure-induced neurodegeneration.
AU Ravizza T; Moneta D; Bottazzi B; Peri G; Garlanda C; Hirsch E; Richards G J; Mantovani A; Vezzani A
CS Department of Neuroscience, Mario Negri Institute for Pharmacological Research, Milan, Italy.
SO Neuroscience, (2001) 105 (1) 43-53.
Journal code: 7605074. ISSN: 0306-4522.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 200109
ED Entered STN: 20011001
Last Updated on STN: 20011001
Entered Medline: 20010927
AB Pentraxin 3, a prototypic long pentraxin, is induced by proinflammatory signals in the brain. Inflammatory cytokines are rapidly induced in glia by epileptic activity. We show that pentraxin 3 immunoreactivity and mRNA are enhanced in the rat forebrain above undetectable control levels by limbic seizures with a dual pattern of induction. Within 6 h from seizure onset, pentraxin 3 immunoreactivity was increased in astrocytes. Eighteen to 48 h later, specific neuronal populations and leucocytes were strongly immunoreactive only in areas of neurodegeneration. This staining was abolished when neuronal cell loss, but not seizures, was prevented by blocking N-methyl-D-aspartate receptors. Pentraxin 3 -/- mice had a more widespread seizure-related neuronal damage in the forebrain than their wild-type littermates although both groups had similar epileptic activity. Our results provide evidence that pentraxin 3 is synthesized in brain after seizures and may exert a protective role in seizure-induced neurodegeneration.
TI Dynamic induction of the long pentraxin PTX3 in the CNS after limbic seizures: evidence for a protective role in seizure-induced neurodegeneration.
CT Check Tags: Male; Support, Non-U.S. Gov't
2-Amino-5-phosphonovalerate: AA, analogs & derivatives
2-Amino-5-phosphonovalerate: PD, pharmacology
Amyloid P Component: GE, genetics
***Amyloid P Component: ME, metabolism**
Animals
C-Reactive Protein: GE, genetics
*C-Reactive Protein: ME, metabolism
Epilepsy: CI, chemically induced
Epilepsy: GE, genetics

*Epilepsy: PP, physiopathology
Excitatory Amino Acid Agonists: PD, pharmacology
Excitatory Amino Acid Antagonists: PD, pharmacology
Fluorescent Dyes: PK, pharmacokinetics
Genetic Predisposition to Disease
Immunohistochemistry
Kainic Acid: PD, pharmacology
*Limbic System: ME, metabolism
Limbic System: PA, pathology
Limbic System: PP, physiopathology
Mice
Mice, Knockout
Nerve Degeneration: PA, pathology
*Nerve Degeneration: PP, physiopathology
Neurons: DE, drug effects
*Neurons: ME, metabolism
Neurons: PA, pathology
*Neuroprotective Agents: ME, metabolism
Prosencephalon: DE, drug effects
Prosencephalon: ME, metabolism
Prosencephalon: PP, physiopathology
RNA, Messenger: ME, metabolism
Rats
Rats, Sprague-Dawley
Receptors, N-Methyl-D-Aspartate: AI, antagonists & inhibitors
Receptors, N-Methyl-D-Aspartate: ME, metabolism
RN 137424-81-8 (2-amino-4-methyl-5-phosphono-3-pentenoic acid); 148591-49-5 (PTX3 protein); 487-79-6 (Kainic Acid); **76726-92-6 (2-Amino-5-phosphonovalerate)**; 9007-41-4 (C-Reactive Protein)
CN 0 (Amyloid P Component); 0 (Excitatory Amino Acid Agonists); 0 (Excitatory Amino Acid Antagonists); 0 (Fluorescent Dyes); 0 (Neuroprotective Agents); 0 (RNA, Messenger); 0 (Receptors, N-Methyl-D-Aspartate)

L25 ANSWER 4 OF 5 MEDLINE on STN
AN 1999275440 MEDLINE
DN PubMed ID: 10343972
TI Aging modulates nitric oxide synthesis and cGMP levels in hippocampus and cerebellum. Effects of amyloid beta peptide.
AU Chalimoniuk M; Strosznajder J B
CS Department of Cellular Signalling, Polish Academy of Science, Warsaw, Poland.
SO Molecular and chemical neuropathology / sponsored by the International Society for Neurochemistry and the World Federation of Neurology and research groups on neurochemistry and cerebrospinal fluid, (1998 Aug-Dec) 35 (1-3) 77-95.
Journal code: 8910358. ISSN: 1044-7393.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199907
ED Entered STN: 19990806
Last Updated on STN: 19990806
Entered Medline: 19990726
AB The biological roles of nitric oxide (NO) and cGMP as inter- and intracellular messengers have been intensively investigated during the last decade. NO and cGMP both mediate physiological effects in the cardiovascular, endocrinological, and immunological systems as well as in central nervous system (CNS). In the CNS, activation of the N-methyl-D-aspartic acid (NMDA) type of glutamatergic receptor induces Ca(2+)-dependent NOS and NO release, which then activates soluble guanylate cyclase for the synthesis of cGMP. Both compounds appear to be important mediators in long-term potentiation and long-term depression, and thus may play important roles in the mechanisms of learning and memory. Aging and the accumulation of amyloid beta (A beta) peptides are important risk factors for the impairment of memory and development of dementia. In these studies, the mechanism of basal- and NMDA

receptor-mediated cGMP formation in different parts of adult and aged brains was evaluated. The relative activity of the NO cascade was determined by assay of NOS and guanylate cyclase activities. In addition, the effect of the neurotoxic fragment 25-35 of A beta (A beta) peptide on basal and NMDA receptor-mediated NOS activity was investigated. The studies were carried out using slices of hippocampus, brain cortex, and cerebellum from 3- and 28-mo-old rats. Aging coincided with a decrease in the basal level of cGMP as a consequence of a more active degradation of cGMP by a phosphodiesterase in the aged brain as compared to the adult brain. Moreover, a loss of the NMDA receptor-stimulated enhancement of the cGMP level determined in the presence of cGMP-phosphodiesterase inhibitor 3-isobutyl-1-methylxanthine (IBMX) was observed in hippocampus and cerebellum of aged rats. However, this NMDA receptor response was preserved in aged brain cerebral cortex. A significant enhancement of the basal activity of NOS by about 175 and 160% in hippocampus and cerebellum, respectively, of aged brain may be involved in the alteration of the NMDA receptor response. The neurotoxic fragment of A beta, peptide 25-35, decreased significantly the NMDA receptor-mediated calcium, and calmodulim-dependent NO synthesis that may then be responsible for disturbances of the NO and cGMP signaling pathway. We concluded that cGMP-dependent signal transduction in hippocampus and cerebellum may become insufficient in senescent brain and may have functional consequences in disturbances of learning and memory processes. A beta peptide accumulated during brain aging and in Alzheimer disease may be an important factor in decreasing the NO-dependent signal transduction mediated by NMDA receptors.

TI Aging modulates nitric oxide synthesis and cGMP levels in hippocampus and cerebellum. Effects of amyloid beta peptide.

CT Check Tags: In Vitro; Male; Support, Non-U.S. Gov't
1-Methyl-3-isobutylxanthine: PD, pharmacology
2-Amino-5-phosphonovalerate: PD, pharmacology
*Aging: ME, metabolism
***Amyloid beta-Protein: PD, pharmacology**
***Amyloid beta-Protein: PH, physiology**
Animals
Cerebellum: DE, drug effects
Cerebellum: GD, growth & development
*Cerebellum: ME, metabolism
Cerebral Cortex: DE, drug effects
Cerebral Cortex: GD, growth & development
Cerebral Cortex: ME, metabolism
*Cyclic GMP: ME, metabolism
Dizocilpine Maleate: PD, pharmacology
*Guanylate Cyclase: ME, metabolism
Hippocampus: DE, drug effects
Hippocampus: GD, growth & development
*Hippocampus: ME, metabolism
Indazoles: PD, pharmacology
N-Methylaspartate: PD, pharmacology
Neuroprotective Agents: PD, pharmacology
Nitric Oxide: BI, biosynthesis
*Nitric-Oxide Synthase: ME, metabolism
Nitroarginine: PD, pharmacology
*Peptide Fragments: PD, pharmacology
Rats
Rats, Wistar
Receptors, N-Methyl-D-Aspartate: PH, physiology

RN 10102-43-9 (Nitric Oxide); 2149-70-4 (Nitroarginine); 28822-58-4 (1-Methyl-3-isobutylxanthine); 2942-42-9 (7-nitroindazole); 6384-92-5 (N-Methylaspartate); 7665-99-8 (Cyclic GMP); **76726-92-6 (2-Amino-5-phosphonovalerate)**; 77086-22-7 (Dizocilpine Maleate)

CN 0 (Amyloid beta-Protein); 0 (Indazoles); 0 (Neuroprotective Agents); 0 (Peptide Fragments); 0 (Receptors, N-Methyl-D-Aspartate); 0 (amyloid beta-protein (25-35)); EC 1.14.13.39 (Nitric-Oxide Synthase); EC 4.6.1.2 (Guanylate Cyclase)

L25 ANSWER 5 OF 5 MEDLINE on STN

AN 93361476 MEDLINE
DN PubMed ID: 7689220
TI Amyloid beta-protein activates tachykinin receptors and inositol trisphosphate accumulation by synergy with glutamate.
AU Kimura H; Schubert D
CS Salk Institute, San Diego, CA 92186-5800.
SO Proceedings of the National Academy of Sciences of the United States of America, (1993 Aug 15) 90 (16) 7508-12.
Journal code: 7505876. ISSN: 0027-8424.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199309
ED Entered STN: 19931008
Last Updated on STN: 19970203
Entered Medline: 19930923
AB The biological function of the soluble form of the amyloid beta-protein (ABP) was examined by assaying its interaction with neuronal receptors expressed in Xenopus oocytes. ABP weakly activated tachykinin receptors, but in the presence of N-methyl-D-aspartate and alpha-amino-3-hydroxy-5-methylisoxazole-4- propionate-type glutamate receptors ABP-induced responses were greatly enhanced. Glutamate and ABP together also induced accumulation of inositol trisphosphate and increases in intracellular Ca2+. These observations suggest that in the presence of glutamate, ABP can activate tachykinin receptors and phosphatidylinositol turnover. ABP may therefore act as a neuromodulatory peptide.
TI Amyloid beta-protein activates tachykinin receptors and inositol trisphosphate accumulation by synergy with glutamate.
CT Check Tags: Female; Support, Non-U.S. Gov't; Support, U.S. Gov't, P.H.S.
2-Amino-5-phosphonovalerate: PD, pharmacology
6-Cyano-7-nitroquinoxaline-2,3-dione
Amino Acid Sequence
***Amyloid beta-Protein: PD, pharmacology**
Analgesics: PD, pharmacology
Animals
Calcium: PD, pharmacology
Drug Synergism
*Glutamates: PD, pharmacology
Glutamic Acid
*Inositol 1,4,5-Trisphosphate: ME, metabolism
Kinetics
Molecular Sequence Data
Neurons: PH, physiology
*Oocytes: ME, metabolism
Quinoxalines: PD, pharmacology
RNA, Messenger: ME, metabolism
Receptors, AMPA
Receptors, Glutamate: BI, biosynthesis
Receptors, Glutamate: DE, drug effects
*Receptors, Glutamate: ME, metabolism
Receptors, N-Methyl-D-Aspartate: BI, biosynthesis
Receptors, N-Methyl-D-Aspartate: DE, drug effects
*Receptors, N-Methyl-D-Aspartate: ME, metabolism
Receptors, Neurokinin-1
Receptors, Neurotransmitter: BI, biosynthesis
Receptors, Neurotransmitter: DE, drug effects
*Receptors, Neurotransmitter: ME, metabolism
Sodium: PD, pharmacology
Substance P: AA, analogs & derivatives
Substance P: PD, pharmacology
Xenopus
RN 115066-14-3 (6-Cyano-7-nitroquinoxaline-2,3-dione); 33507-63-0 (Substance P); 56-86-0 (Glutamic Acid); 7440-23-5 (Sodium); 7440-70-2 (Calcium); **76726-92-6 (2-Amino-5-phosphonovalerate)**; 85166-31-0 (Inositol 1,4,5-Trisphosphate); 91224-37-2 (spantide)
CN 0 (Amyloid beta-Protein); 0 (Analgesics); 0 (Glutamates); 0

(Quinoxalines); 0 (RNA, Messenger); 0 (Receptors, AMPA); 0 (Receptors, Glutamate); 0 (Receptors, N-Methyl-D-Aspartate); 0 (Receptors, Neurokinin-1); 0 (Receptors, Neurotransmitter)

```
=> d que l26
L2            16 SEA FILE=REGISTRY ABB=ON  PLU=ON  (100-88-9/BI OR 1120-71-4/BI
                 OR 14099-81-1/BI OR 22458-67-9/BI OR 29777-99-9/BI OR 303957-00
                 -8/BI OR 303957-01-9/BI OR 309752-14-5/BI OR 376-73-8/BI OR
                 407-41-0/BI OR 40712-20-7/BI OR 58431-88-2/BI OR 7013-33-4/BI
                 OR 76326-31-3/BI OR 91-21-4/BI OR 939-23-1/BI)
L23         3206 SEA FILE=MEDLINE ABB=ON  PLU=ON  L2
L26            6 SEA FILE=MEDLINE ABB=ON  PLU=ON  L23 AND TRANSPLANT?


=> d bib ab trial l26 1-6

L26  ANSWER 1 OF 6     MEDLINE on STN
AN   96224265     MEDLINE
DN   PubMed ID: 8643558
TI   Malignant conversion of chemically transformed normal human cells.
AU   Milo G E; Li D; Casto B C; Theil K; Shuler C; Noyes I; Chen J
CS   Department of Medical Biochemistry and Comprehensive Cancer Center, The
     Ohio State University, Columbus, OH 43210, USA.
NC   R01 CA25907-14 (NCI)
SO   Proceedings of the National Academy of Sciences of the United States of
     America, (1996 May 28) 93 (11) 5229-34.
     Journal code: 7505876. ISSN: 0027-8424.
CY   United States
DT   Journal; Article; (JOURNAL ARTICLE)
LA   English
FS   Priority Journals
EM   199607
ED   Entered STN: 19960726
     Last Updated on STN: 19970203
     Entered Medline: 19960717
AB   Two structurally unrelated chemicals, aflatoxin B1 and propane sultone,
     transformed human foreskin cells to a stage of anchorage-independent
     growth.  Isolation from agar and repopulation in monolayer culture of
     these transformed cells was followed by transfection with a cDNA library,
     which resulted in cells that exhibited an altered epithelioid morphology.
     Chemically transformed/nontransfected cells and transfected normal cells
     did not undergo a significant morphological change.  These
     epithelioid-appearing, transfected cells, when inoculated into nude mice,
     form progressively growing tumors.  The tumors are histopathologically
     interpreted as carcinomas.  All of the first generation tumors in the
     surrogate hosts exhibited characteristic rates of growth similar to those
     of transplants of spontaneous human tumors.  In the second
     generation of tumor xenografts, the progressively growing tumors derived
     from the transfected cells exhibited a more rapid rate of growth.
     Southern analysis and reverse transcription PCR confirmed that a 1.3-kb
     genetic element was integrated into the genome and was actively being
     transcribed.  Examination of the metaphase chromosomes in normal human
     cells revealed that the genetic element responsible for this conversion
     was located at site 31-32 of the q arm of chromosome 7.  The DNA sequence
     of this 1.3-kb genetic element contains a coding region for 79 amino acids
     and a long 3'-untranslated region and appears to be identical to CATR1.3
     isolated from tumors produced by methyl methanesulfonate-converted,
     nontransplantable human tumor cells.
TI   Malignant conversion of chemically transformed normal human cells.
CT   Check Tags: Human; Male; Support, U.S. Gov't, P.H.S.
     *Aflatoxin B1: TO, toxicity
      Animals
      Base Sequence
      Blotting, Southern
     *Carcinogens: TO, toxicity
     *Carcinoma: PA, pathology
      Cell Adhesion
      Cell Division
     *Cell Transformation, Neoplastic
      Cell Transformation, Neoplastic: DE, drug effects
      Cells, Cultured
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Chromosome Mapping
*Chromosomes, Human, Pair 7
DNA Primers
Epithelium
*Gene Conversion
Infant, Newborn
Methyl Methanesulfonate: TO, toxicity
Mice
Mice, Nude
Molecular Sequence Data
Polymerase Chain Reaction
Sarcoma Viruses, Avian
*Skin: CY, cytology
Skin: DE, drug effects
Skin: PA, pathology
*Thiophenes: TO, toxicity
Transcription, Genetic
Transfection
Transplantation, Heterologous
RN **1120-71-4 (1,3-propane sultone)**; 1162-65-8 (Aflatoxin B1); 66-27-3 (Methyl Methanesulfonate)
CN 0 (Carcinogens); 0 (DNA Primers); 0 (Thiophenes)

L26 ANSWER 2 OF 6 MEDLINE on STN
AN 96016494 MEDLINE
DN PubMed ID: 7583294
TI Modulation of NMDA receptor expression in the rat spinal cord by peripheral nerve injury and adrenal medullary grafting.
AU Hama A T; Unnerstall J R; Siegan J B; Sagen J
CS Department of Anatomy and Cell Biology, University of Illinois at Chicago 60612, USA.
NC NS25054 (NINDS)
SO Brain research, (1995 Jul 31) 687 (1-2) 103-13.
Journal code: 0045503. ISSN: 0006-8993.
CY Netherlands
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199512
ED Entered STN: 19960124
Last Updated on STN: 19970203
Entered Medline: 19951214
AB Excessive activation of N-methyl-D-aspartate (NMDA) receptors in the spinal cord consequent to peripheral injury has been implicated in the initiation of neuropathologic events leading to a state of chronic hyperexcitability and persistence of exaggerated sensory processing. In other CNS disease or injury states, NMDA-mediated neurotoxic damage is associated with a loss of NMDA receptors, and outcome may be improved by agents reducing NMDA activation. Previous findings in our laboratory have demonstrated that the **transplantation** of adrenal medullary tissue into the spinal subarachnoid space can alleviate sensory abnormalities and reduce the induction of a putative nitric oxide synthase consequent to peripheral nerve injury. In order to determine changes in NMDA receptor expression in the spinal cord following peripheral nerve injury and adrenal medullary grafting, NMDA receptor binding using a high-affinity competitive NMDA receptor antagonist, CGP-39653, and NMDAR1 subunit distribution using immunocytochemistry were investigated. Two weeks following peripheral nerve injury by loose ligation of the right sciatic nerve, either adrenal medullary or striated muscle (control) tissue pieces were implanted in the spinal subarachnoid space. Binding studies revealed a marked reduction in [3H]CGP-39653 binding at L4-L5 levels ipsilateral to peripheral nerve injury in control **transplanted** animals. In contrast, NMDA binding was normalized in adrenal medullary grafted animals. In addition, NMDAR1 immunoreactivity was reduced in both the dorsal horn neuropil and motor neurons of the ventral horn in animals with peripheral nerve injury, while levels in adrenal medullary grafted animals appeared similar to intact controls.

These results suggest that adrenal medullary **transplants** reduce abnormal sensory processing resulting from peripheral injury by intervening in the spinal NMDA-excitotoxicity cascade.

TI Modulation of NMDA receptor expression in the rat spinal cord by peripheral nerve injury and adrenal medullary grafting.

CT Check Tags: Male; Support, U.S. Gov't, P.H.S.
2-Amino-5-phosphonovalerate: AA, analogs & derivatives
2-Amino-5-phosphonovalerate: PD, pharmacology
***Adrenal Medulla: TR, transplantation**
Animals
Excitatory Amino Acid Antagonists: PD, pharmacology
Immunohistochemistry
Nitric-Oxide Synthase: BI, biosynthesis
*Peripheral Nerves: IN, injuries
Radioligand Assay
Rats
Rats, Sprague-Dawley
Receptors, N-Methyl-D-Aspartate: AI, antagonists & inhibitors
Receptors, N-Methyl-D-Aspartate: BI, biosynthesis
*Receptors, N-Methyl-D-Aspartate: ME, metabolism
Sciatic Nerve: IN, injuries
*Spinal Cord: ME, metabolism

RN 132472-31-2 (CGP 39653); **76726-92-6 (2-Amino-5-phosphonovalerate)**

CN 0 (Excitatory Amino Acid Antagonists); 0 (Receptors, N-Methyl-D-Aspartate); EC 1.14.13.39 (Nitric-Oxide Synthase)

L26 ANSWER 3 OF 6 MEDLINE on STN

AN 95203351 MEDLINE

DN PubMed ID: 7895786

TI Regulation of dopamine levels in intrastriatal grafts of fetal mesencephalic cell suspension: an in vivo voltammetric approach.

AU Moukhles H; Forni C; Nieoullon A; Daszuta A

CS Laboratoire de Neurobiologie Cellulaire et Fonctionnelle, CNRS, Marseille, France.

SO Experimental brain research. Experimentelle Hirnforschung. Experimentation cerebrale, (1994) 102 (1) 10-20.
Journal code: 0043312. ISSN: 0014-4819.

CY GERMANY: Germany, Federal Republic of

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Priority Journals

EM 199504

ED Entered STN: 19950504
Last Updated on STN: 19970203
Entered Medline: 19950425

AB An in vivo voltammetric technique was used to monitor dopamine (DA) release in the 6-hydroxydopamine (6-OHDA)-lesioned rat striatum reinnervated by grafts of ventral mesencephalon containing DA neurons. Extracellular levels of DA were measured during the administration of D1 or D2 DA receptor antagonists. In addition, changes in DA levels induced by agonists and antagonists of excitatory amino acid (EAA) receptors were studied to verify the possible existence of a host glutamatergic control on the grafted DA cells in the '**transplanted**' rats. Two months after the grafts were performed, the voltammetric signal measured under baseline conditions in the grafted striata was found to be almost similar to that recorded on the contralateral control side. Likewise, in another group of **transplanted** rats, the turnover of the amine, as expressed by the DO-PAC/DA tissue level ratio, was found to have become "normalized" after grafting, compared with the lesion-only group. The increase in the voltammetric signal observed after administering the D2 antagonist sulpiride (100 mg/kg i.p.) was lower in the grafted striata than on the contralateral side, however. This suggests that some D2 autoreceptor subsensitivity may have helped to maintain the baseline level of dopaminergic transmission. Adaptive processes of this kind might compensate for the partial DA reinnervation of the host striatum found to occur on the basis of the tyrosine hydroxylase immunostaining patterns. After administration of either the D1 antagonist SCH 23390 (0.1 mg/kg

s.c.), or injection of EAA receptor agonists--1-glutamate, quisqualate and N-methyl-D-aspartate (all 10 nmol i.c.v.)--and antagonists--amino-phosphono-valeric acid (10 nmol i.c.v.) and dizocilpine (MK801, 0.2 mg/kg i.p.)--no significant differences between the two striata were detected in the voltammetric signals. These results suggest that, in the grafted rats, neurons belonging to the host population, such as the striatal cells bearing D1 receptors or the corticostriatal afferents presumed to contain glutamate, might modulate the DA levels, as was found to occur under normal conditions.

TI Regulation of dopamine levels in intrastriatal grafts of fetal mesencephalic cell suspension: an in vivo voltammetric approach.

CT Check Tags: Female; Support, Non-U.S. Gov't
2-Amino-5-phosphonovalerate: PD, pharmacology
3,4-Dihydroxyphenylacetic Acid: ME, metabolism
Analysis of Variance
Animals
***Brain Tissue Transplantation: PH, physiology**
Cerebral Ventricles: DE, drug effects
Cerebral Ventricles: PH, physiology
Corpus Striatum: DE, drug effects
*Corpus Striatum: PH, physiology
Dizocilpine Maleate: PD, pharmacology
*Dopamine: ME, metabolism
Fetal Tissue Transplantation: PH, physiology
Glutamic Acid: AD, administration & dosage
Glutamic Acid: PD, pharmacology
Injections, Intraventricular
Kinetics
Mesencephalon: DE, drug effects
*Mesencephalon: PH, physiology
***Mesencephalon: TR, transplantation**
N-Methylaspartate: AD, administration & dosage
N-Methylaspartate: PD, pharmacology
Oxidopamine
Quisqualic Acid: AD, administration & dosage
Quisqualic Acid: PD, pharmacology
Rats
Rats, Wistar
Receptors, Dopamine D1: AI, antagonists & inhibitors
Receptors, Dopamine D2: AI, antagonists & inhibitors
Sch-23390: PD, pharmacology
Sulpiride: PD, pharmacology
Time Factors
Transplantation, Heterotopic

RN 102-32-9 (3,4-Dihydroxyphenylacetic Acid); 1199-18-4 (Oxidopamine); 15676-16-1 (Sulpiride); 51-61-6 (Dopamine); 52809-07-1 (Quisqualic Acid); 56-86-0 (Glutamic Acid); 6384-92-5 (N-Methylaspartate); **76726-92-6 (2-Amino-5-phosphonovalerate)**; 77086-22-7 (Dizocilpine Maleate); 87075-17-0 (Sch-23390)

CN 0 (Receptors, Dopamine D1); 0 (Receptors, Dopamine D2)

L26 ANSWER 4 OF 6 MEDLINE on STN
AN 94009510 MEDLINE
DN PubMed ID: 8104820
TI Evidence for enhanced synaptic excitation in **transplanted** neostriatal neurons.
AU Siviy S M; Walsh J P; Radisavljevic Z; Cohen R W; Buchwald N A; Levine M S
CS Mental Retardation Research Center, UCLA School of Medicine 90024.
NC HD05958 (NICHD)
SO Experimental neurology, (1993 Oct) 123 (2) 222-34.
Journal code: 0370712. ISSN: 0014-4886.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199311
ED Entered STN: 19940117

Last Updated on STN: 19950206
Entered Medline: 19931122

AB Fetal neostriatal tissue was **transplanted** into either the neostriatum or substantia nigra of adult rats. One to 6 months after **transplantation**, coronal brain slices were taken through the rostrocaudal extent of the **transplants** and neurons were characterized electrophysiologically using an in vitro slice preparation. When compared to control neurons taken from intact adult neostriata, **transplanted** neostriatal neurons (TSNs) had higher input resistances and longer time constants. All other passive and active membrane properties assessed were comparable between **transplanted** and control neostriatal neurons. Regardless of the **transplantation** site, local extracellular stimulation outside the graft elicited high-amplitude, long-duration depolarizing synaptic potentials that typically triggered bursts of action potentials. These synaptic potentials contrast with lower amplitude, shorter duration synaptic potentials consistently elicited in control neostriatal neurons. The depolarizing synaptic potentials evoked in the TSNs appeared to be mediated by a combined activation of N-methyl-D-aspartate (NMDA) and non-NMDA excitatory amino acid receptors. Both the broad-spectrum excitatory amino acid antagonist kynurenic acid and the specific non-NMDA receptor antagonist, 6-cyano-7-nitroquinoxaline-2,3-dione significantly reduced postsynaptic potentials elicited in TSNs. The specific NMDA antagonist 2-amino-5-phosphonovalerate had less effect on the amplitude but markedly reduced the duration of the synaptic potentials. The duration and amplitude of the bursts were augmented by the gamma-aminobutyric acid (GABA)A receptor antagonist bicuculline methiodide, indicating that inhibition occurred in TSNs. TSNs were also more sensitive than control neurons to direct application of glutamate or NMDA. These findings demonstrate that TSNs express altered electrophysiological properties. The pharmacological analysis indicates that depolarizing postsynaptic potentials were mediated by activation of excitatory amino acid receptors, suggesting either innervation of the graft by host fibers which contain excitatory amino acids or development of novel local excitatory interactions intrinsic to the graft. Furthermore, the occurrence of high-amplitude, long-duration depolarizing synaptic potentials in TSNs, regardless of the site of **transplantation**, suggests that grafted neostriatal neurons become hyperexcitable to synaptic input.

TI Evidence for enhanced synaptic excitation in **transplanted** neostriatal neurons.

CT Check Tags: Male; Support, Non-U.S. Gov't; Support, U.S. Gov't, P.H.S.
2-Amino-5-phosphonovalerate: PD, pharmacology
6-Cyano-7-nitroquinoxaline-2,3-dione
Animals
Electrophysiology
***Fetal Tissue Transplantation**
Glutamates: PD, pharmacology
Glutamic Acid
Kynurenic Acid: PD, pharmacology
N-Methylaspartate: ME, metabolism
*Neostriatum: PH, physiology
Neostriatum: TR, transplantation
Quinoxalines: PD, pharmacology
Rats
Rats, Sprague-Dawley
Receptors, N-Methyl-D-Aspartate: AI, antagonists & inhibitors
*Substantia Nigra: PH, physiology
Synapses: DE, drug effects
*Synapses: PH, physiology
Synaptic Transmission: DE, drug effects

RN 115066-14-3 (6-Cyano-7-nitroquinoxaline-2,3-dione); 492-27-3 (Kynurenic Acid); 56-86-0 (Glutamic Acid); 6384-92-5 (N-Methylaspartate); **76726-92-6 (2-Amino-5-phosphonovalerate)**

CN 0 (Glutamates); 0 (Quinoxalines); 0 (Receptors, N-Methyl-D-Aspartate)

L26 ANSWER 5 OF 6 MEDLINE on STN

AN 90058905 MEDLINE
DN PubMed ID: 2573439
TI In vitro electrophysiological analysis of mature rat hippocampal **transplants** in oculo.
AU Mynlieff M; Proctor W R; Seiger A; Dunwiddie T V
CS Department of Physiology, Colorado State University, Fort Collins 80523.
NC DA 02702 (NIDA)
SO Brain research. Developmental brain research, (1989 Nov 1) 50 (1) 113-22.
Journal code: 8908639. ISSN: 0165-3806.
CY Netherlands
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 199001
ED Entered STN: 19900328
Last Updated on STN: 19970203
Entered Medline: 19900104
AB We have investigated the maturation of isolated rat hippocampus grafted into the anterior chamber of the eye. Electrophysiological responses from **transplants** were compared to those recorded from the in vitro hippocampal slice preparation. Intracellular recording demonstrated that the passive membrane characteristics of intraocular hippocampal neurons were similar to those of the CA1 pyramidal cells in the in vitro slice preparation. However, the slow after-hyperpolarization which normally follows depolarization-induced action potentials was reduced or completely absent in the intraocular **transplants**, and the excitatory postsynaptic potential (EPSP) evoked by local stimulation was prolonged. The duration of the EPSP was reduced by perfusion with D-aminophosphonovaleric acid (2.5-50 microM), an N-methyl-D-aspartate receptor antagonist. Normal levels of glutamate decarboxylase (a marker for gamma-aminobutyric acidergic neurons) were found in the **transplants**, and responses to adenosine, bicuculline, and norepinephrine were similar in the in oculo **transplants** and in vitro slices. The data suggest that although many properties of hippocampal neurons are intrinsically determined, other aspects of the physiology of mature hippocampus either fail to develop, or develop abnormally in the absence of external inputs in oculo.
TI In vitro electrophysiological analysis of mature rat hippocampal **transplants** in oculo.
CT Check Tags: Support, Non-U.S. Gov't; Support, U.S. Gov't, Non-P.H.S.; Support, U.S. Gov't, P.H.S.
2-Amino-5-phosphonovalerate: PD, pharmacology
Action Potentials: DE, drug effects
Animals
*Anterior Chamber
Glutamate Decarboxylase: ME, metabolism
Hippocampus: ME, metabolism
Hippocampus: PH, physiology
***Hippocampus: TR, transplantation**
Membrane Potentials: DE, drug effects
Norepinephrine: PD, pharmacology
Rats
Rats, Inbred Strains
RN 51-41-2 (Norepinephrine); **76726-92-6 (2-Amino-5-phosphonovalerate)**
CN EC 4.1.1.15 (Glutamate Decarboxylase)

L26 ANSWER 6 OF 6 MEDLINE on STN
AN 88334515 MEDLINE
DN PubMed ID: 2901662
TI Excitatory amino acid receptors expressed in Xenopus oocytes: agonist pharmacology.
AU Verdoorn T A; Dingledine R
CS Department of Pharmacology and Neurobiology Curriculum, University of North Carolina, Chapel Hill 27599.
NC NS-17771 (NINDS)
NS-22249 (NINDS)
NS-23804 (NINDS)

SO Molecular pharmacology, (1988 Sep) 34 (3) 298-307.
Journal code: 0035623. ISSN: 0026-895X.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 198810
ED Entered STN: 19900308
Last Updated on STN: 19970203
Entered Medline: 19881026

AB The properties of excitatory amino acid (EAA) receptors **transplanted** into Xenopus oocytes were investigated by voltage clamp 48 hr to 5 days after oocytes had been injected with mRNA isolated from rat brain. The application of EAA agonists to mRNA-injected cells, but not to uninjected or water-injected cells, produced several different inward currents, two of which are characteristic of neuronal EAA receptors. Currents with properties expected from activation of N-methyl-D-aspartate (NMDA) receptors were evoked by L-glutamate (EC50 = 2.3 microM), D-aspartate (10 microM), L-aspartate (13 microM), NMDA (31 microM), and ibotenate (35 microM). Inward currents activated by these agonists were blocked by Mg2+ in a voltage-dependent manner and antagonized by 10-50 microM D-2-amino-5-phosphonovaleric acid (D-APV). The D-APV block was not voltage dependent. A second type of inward current was produced by kainate, domoate, (RS)-alpha-amino-3-hydroxy-5-methyl-4-isoxazolepropionate (AMPA), and L-glutamate. This smooth inward current was insensitive to Mg2+ and D-APV. L-Glutamate and domoate were equipotent for activating this current (EC50 = 14 microM) whereas kainate was less potent (98 microM). The kainate potency was somewhat voltage dependent, inasmuch as the EC50 was 33% lower when measured at +38 mV than when measured at -60 mV in the same cells. Quisqualate (50 microM) and AMPA (50 microM) drastically reduced the kainate current, suggesting these agonists also interact with this receptor. Some mRNA preparations encoded only receptors for the kainate response, which argues for distinct NMDA and non-NMDA receptors. A third type of inward current was produced by quisqualate. This current, consisting of oscillating and smooth components, was carried by chloride and not evoked by AMPA, suggesting it is not likely caused by activation of the conventional neuronal quisqualate receptor. The utility of the oocyte preparation for quantitative pharmacological studies of EAA receptors is discussed.

TI Excitatory amino acid receptors expressed in Xenopus oocytes: agonist pharmacology.

CT Check Tags: Female; Support, Non-U.S. Gov't; Support, U.S. Gov't, P.H.S.
2-Amino-5-phosphonovalerate
Animals
Aspartic Acid: AA, analogs & derivatives
Aspartic Acid: PD, pharmacology
Chlorides: ME, metabolism
Ibotenic Acid: AA, analogs & derivatives
Ibotenic Acid: PD, pharmacology
Kainic Acid: PD, pharmacology
Membrane Potentials: DE, drug effects
N-Methylaspartate
*Oocytes: AN, analysis
Oxadiazoles: PD, pharmacology
Quisqualic Acid
Rats
Receptors, AMPA
*Receptors, Drug: DE, drug effects
Receptors, Kainic Acid
Receptors, N-Methyl-D-Aspartate
*Receptors, Neurotransmitter: DE, drug effects
Valine: AA, analogs & derivatives
Valine: PD, pharmacology
Xenopus
alpha-Amino-3-hydroxy-5-methyl-4-isoxazolepropionic Acid
RN 2552-55-8 (Ibotenic Acid); 487-79-6 (Kainic Acid); 52809-07-1 (Quisqualic Acid); 56-84-8 (Aspartic Acid); 6384-92-5 (N-Methylaspartate); 7004-03-7

(Valine); **76726-92-6 (2-Amino-5-phosphonovalerate)**; 77521-29-0
(alpha-Amino-3-hydroxy-5-methyl-4-isoxazolepropionic Acid)
CN 0 (Chlorides); 0 (Oxadiazoles); 0 (Receptors, AMPA); 0 (Receptors, Drug);
0 (Receptors, Kainic Acid); 0 (Receptors, N-Methyl-D-Aspartate); 0
(Receptors, Neurotransmitter)

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                407-41-0/BI OR 40712-20-7/BI OR 58431-88-2/BI OR 7013-33-4/BI
                OR 76326-31-3/BI OR 91-21-4/BI OR 939-23-1/BI)
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L13          10 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L3(L)AMYLOID?
L14           4 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L13 AND PY<2001


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L14  ANSWER 1 OF 4  HCAPLUS  COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER:         2000:841961  HCAPLUS
DOCUMENT NUMBER:          134:13348
TITLE:                    Methods and compounds for inhibiting amyloid deposits
INVENTOR(S):              Szarek, Walter A.; Weaver, Donald E.; Kong, Xianqi;
                          Gupta, Ajay; Migneault, David
PATENT ASSIGNEE(S):       Queen's University at Kingston, Can.; Neurochem, Inc.
SOURCE:                   PCT Int. Appl., 48 pp.
                          CODEN: PIXXD2
DOCUMENT TYPE:            Patent
LANGUAGE:                 English
FAMILY ACC. NUM. COUNT:   2
PATENT INFORMATION:

     PATENT NO.        KIND  DATE           APPLICATION NO.  DATE
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     WO 2000071101      A2   20001130       WO 2000-CA607    20000524 <--
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             LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD,
             SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA,
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     US 6562836         B1   20030513       US 2000-576677   20000523
     EP 1227803         A2   20020807       EP 2000-930923   20000524
         R:  AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
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     JP 2003500350      T2   20030107       JP 2000-619408   20000524
PRIORITY APPLN. INFO.:                   US 1999-135545P  P  19990524
                                         US 1999-143123P  P  19990709
                                         US 2000-576677   A  20000523
                                         WO 2000-CA607    W  20000524
OTHER SOURCE(S):          MARPAT 134:13348
AB   Methods and compns. are provided which are useful in the treatment of
     amyloidosis.  In particular, methods and compns. are provided for
     inhibiting, preventing and treating amyloid deposition, e.g., in
     pancreatic islets, wherein the amyloidotic deposits are islet amyloid
     polypeptide (IAPP)-assocd. amyloid deposition or deposits.  The methods of
     the invention involve administering to a subject a therapeutic compd.
     which inhibits IAPP-assocd. amyloid deposits.  Accordingly, the compns.
     and methods of the invention are useful for inhibiting IAPP-assocd.
     amyloidosis in disorders in which such amyloid deposition occurs, such as
     diabetes.  Prepn. of a compd. of the invention, 4-phenyl-1-(3'-
     sulfopropyl)-1,2,3,6-tetrahydropyridine sodium salt, is described.
IT   303957-01-9P
     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);
     BIOL (Biological study); PREP (Preparation); USES (Uses)
        (amyloid deposit-inhibiting compds. and methods)
RN   303957-01-9  HCAPLUS
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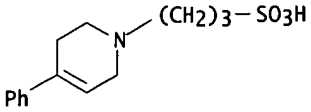
CN 1(2H)-Pyridinepropanesulfonic acid, 3,6-dihydro-4-phenyl-, sodium salt (9CI) (CA INDEX NAME)



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IT **91-21-4**, 1,2,3,4-Tetrahydroisoquinoline **376-73-8**
14099-81-1 303957-00-8
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(**amyloid** deposit-inhibiting compds. and methods)

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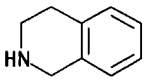

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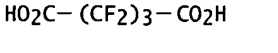
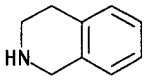


RN 14099-81-1 HCAPLUS
CN Isoquinoline, 1,2,3,4-tetrahydro-, hydrochloride (6CI, 8CI, 9CI) (CA INDEX NAME)



● HCl

RN 303957-00-8 HCAPLUS
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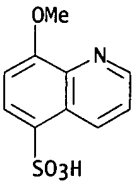

● Na

IT **309752-14-5P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and reaction; **amyloid** deposit-inhibiting compds. and methods)
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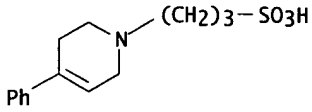
CN 1(2H)-Pyridinepropanesulfonic acid, 3,6-dihydro-4-phenyl- (9CI) (CA INDEX NAME)



IT **939-23-1**, 4-Phenylpyridine **1120-71-4**, 1,3-Propane sultone
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction; **amyloid** deposit-inhibiting compds. and methods)
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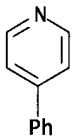
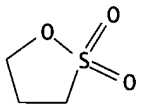


RN 1120-71-4 HCAPLUS
CN 1,2-Oxathiolane, 2,2-dioxide (8CI, 9CI) (CA INDEX NAME)



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L14 ANSWER 2 OF 4 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2000:772432 HCAPLUS
DOCUMENT NUMBER: 133:329624
TITLE: Compositions and methods for treating amyloidosis
INVENTOR(S): Gordon, Heather; Szarek, Walter; Weaver, Donald; Kong, Xianqi
PATENT ASSIGNEE(S): Queen's University at Kingston, Can.; Neurochem, Inc.
SOURCE: PCT Int. Appl., 68 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000064420	A2	20001102	WO 2000-CA494	20000428 <--
WO 2000064420	A3	20021107		

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SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA,
ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE,
DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF,
CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

BR 2000010099	A	20020604	BR 2000-10099		20000428
EP 1276483	A2	20030122	EP 2000-922395		20000428
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL					
JP 2003517458	T2	20030527	JP 2000-613411		20000428
PRIORITY APPLN. INFO.:			US 1999-131464P	P	19990428
			US 1999-135545P	P	19990524
			US 1999-143123P	P	19990709
			WO 2000-CA494	W	20000428

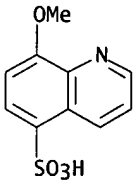
OTHER SOURCE(S): MARPAT 133:329624

AB Therapeutic compds. and methods for modulating amyloid aggregation in a subject, whatever its clin. setting, are described. Amyloid aggregation is modulated by the administration to a subject of an effective amt. of a therapeutic compd. [(R1Zk)(R2Qm)N]pTYs [R1, R2 = H, (un)substituted alkyl, (un)substituted aryl; Z, Q = C(O), C(S), SO2, SO; k, m = 0, 1, with provisions; p, s = pos. integer such that biodistribution of therapeutic compd. for intended target site is not prevented while maintaining activity of therapeutic compd.; T = linking group; Y = AX; A = anionic group at physiol. pH; X = cationic group], or a pharmaceutically acceptable salt or ester, such that modulation of amyloid aggregation occurs. Prepn. of e.g. 8-methoxy-5-quinolinesulfonic acid sodium salt is described.

IT **303957-00-8P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(**amyloidosis** treatment compds. and compns.)

RN 303957-00-8 HCAPLUS

CN 5-Quinolinesulfonic acid, 8-methoxy-, sodium salt (9CI) (CA INDEX NAME)

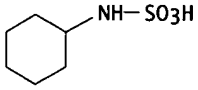


● Na

IT **100-88-9 407-41-0 7013-33-4 14099-81-1**
29777-99-9 40712-20-7 58431-88-2
76326-31-3 303957-01-9
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(**amyloidosis** treatment compds. and compns.)

RN 100-88-9 HCAPLUS

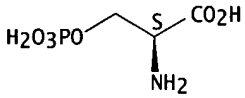
CN Sulfamic acid, cyclohexyl- (9CI) (CA INDEX NAME)



RN 407-41-0 HCAPLUS

CN L-Serine, dihydrogen phosphate (ester) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



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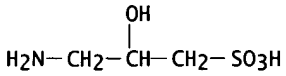

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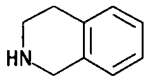

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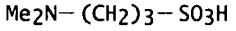

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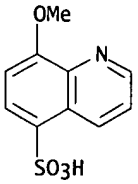

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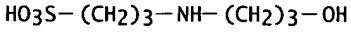

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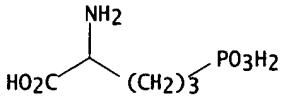

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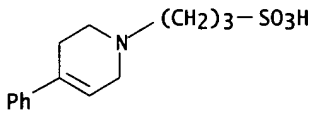
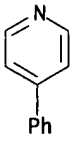


IT **939-23-1**, 4-Phenylpyridine **1120-71-4**, 1,3-Propane sultone
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction; **amyloidosis** treatment compds. and compns.)
RN 939-23-1 HCAPLUS
CN Pyridine, 4-phenyl- (7CI, 8CI, 9CI) (CA INDEX NAME)



RN 1120-71-4 HCAPLUS
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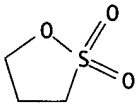

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L14 ANSWER 3 OF 4 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1998:776581 HCAPLUS
DOCUMENT NUMBER: 130:20587
TITLE: Method for treating amyloidosis
INVENTOR(S): Kisilevsky, Robert; Szarek, Walter; Weaver, Donald
PATENT ASSIGNEE(S): Queen's University at Kingston, Can.
SOURCE: U.S., 29 pp., Cont.-in-part of U.S. Ser. No. 463,548.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 6
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5840294	A	19981124	US 1995-542997	19951013 <--

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     EP 1060750        A3   20030326
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     US 5643562        A    19970701       US 1995-403230   19950315 <--
     US 5972328        A    19991026       US 1995-463548   19950605 <--
     CA 2213759        AA   19960919       CA 1996-2213759  19960315 <--
     WO 9628187        A1   19960919       WO 1996-CA179    19960315 <--
        W:  AM, AU, BB, BG, BR, BY, CA, CN, CZ, EE, FI, GE, HU, IS, JP, KG,
            KP, KR, KZ, LK, LR, LT, LV, MD, MG, MN, MX, NO, NZ, PL, RO, RU,
            SG, SI, SK, TJ, TM, TT, UA, US, UZ, VN
        RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR,
            IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML,
            MR, NE, SN, TD, TG
     AU 9650976        A1   19961002       AU 1996-50976    19960315 <--
     AU 716218         B2   20000224
     BR 9607197        A    19971111       BR 1996-7197     19960315 <--
     EP 814842         A1   19980107       EP 1996-907229   19960315 <--
        R:  AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
            IE, FI
     JP 11501635       T2   19990209       JP 1996-527140   19960315 <--
     NZ 303914         A    20001222       NZ 1996-303914   19960315 <--
     JP 2004115539     A2   20040415       JP 2003-404129   20031203
PRIORITY APPLN. INFO.:                   US 1993-37844    B2 19930329
                                         US 1994-219798   B2 19940329
                                         US 1994-315391   B2 19940929
                                         US 1995-403230   A2 19950315
                                         US 1995-463548   A2 19950605
                                         EP 1994-909883   A3 19940329
                                         US 1995-542997   A  19951013
                                         JP 1996-527140   A3 19960315
                                         WO 1996-CA179    W  19960315
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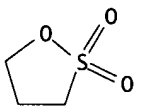
AB Therapeutic compds. and methods for inhibiting amyloid deposition in a subject, whatever its clin. setting, are described. Amyloid deposition is inhibited by the administration to a subject of an effective amt. of a therapeutic compd. comprising an anionic group and a carrier mol., or a pharmaceutically acceptable salt thereof, such that an interaction between an amyloidogenic protein and a basement membrane constituent is inhibited. Preferred anionic groups are sulfonates and sulfates. Preferred carrier mols. include carbohydrates, polymers, peptides, peptide derivs., aliph. groups, alicyclic groups, heterocyclic groups, arom. groups and combinations thereof.

IT **1120-71-4**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(inhibition of **amyloid** deposition by drugs comprising an anionic group and a carrier mol.)

RN 1120-71-4 HCAPLUS

CN 1,2-Oxathiolane, 2,2-dioxide (8CI, 9CI) (CA INDEX NAME)



REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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L14 ANSWER 4 OF 4 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1998:490526 HCAPLUS
DOCUMENT NUMBER: 129:131257
TITLE: Treatment of neurotoxicity in Alzheimer's disease by

.beta.-amyloid peptides
INVENTOR(S): Ingram, Vernon M.; Blanchard, Barbara J.
PATENT ASSIGNEE(S): Massachusetts Institute of Technology, USA
SOURCE: PCT Int. Appl., 69 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

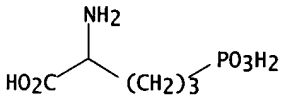
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9830229	A1	19980716	WO 1998-US653	19980109 <--
W: CA, JP				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
EP 1015013	A1	20000705	EP 1998-902522	19980109 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				

PRIORITY APPLN. INFO.: US 1997-35847P P 19970110
US 1997-960188 A 19971029
WO 1998-US653 W 19980109

AB The invention involves identification of a mechanism of .beta.-amyloid peptide cytotoxicity, which enables treatment of conditions caused by .beta.-amyloid peptide aggregates by administration of compds. which antagonize the mechanism of cytotoxicity. The invention includes the identification and isolation of compds. which can antagonize the aggregation of .beta.-amyloid peptides and the neurotoxic effects of such aggregates. The compds. include isolated peptides which were selected for their ability to form a complex with a .beta.-amyloid peptide, or are derived from peptides so selected. Methods for treating conditions resulting from neurotoxic .beta.-amyloid peptide aggregates and pharmaceutical prepns. are provided. Also provided are methods for selecting addnl. compds. which can antagonize the aggregation of .beta.-amyloid peptides and the neurotoxic effects of such aggregates.

IT **76326-31-3**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(treatment of neurotoxicity in Alzheimer's disease by .beta.-**amyloid** peptides)

RN 76326-31-3 HCAPLUS
CN Norvaline, 5-phosphono- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT